was the same as that employed for the relief of fissure and spasmodic contraction of the orifice of the rectum. But less severe means were occasionally successful. Patients afflicted with this complaint were usually relieved, and sometimes cured, by the daily introduction into the vagina, for a length of time, of local sedatives, such as belladonna ointment and chloroform. A small cup-like indentation was made with the finger in an ordinary belladonna pessary; a few drops of chloroform having been poured in, and then shut in by putting a piece of ointment over the orifice, and then the whole was introduced into the vagina, where the ointment slowly dissolved, and became absorbed along with the chloroform. As to the probable nature of these painful contractions, he (Dr. Simpson) could not supply any very definite answer, but he thought they depended in different cases either, first, on a kind of permanent spasm of some of the muscular fibres around the vagina, of the same nature as the spasm of the sterno-cleido-mastoid muscle, which produces torticollis; or, secondly, they were due to contractions going on slowly in some portions of the pelvic fascia, perhaps resulting from a kind of subacute inflammation, and resembling those often painful contractions of the palmar fascia, which are the acknowledged cause of "crooked-in fingers." Dr. S. believed that the common anatomical seats of these painful vaginal contractions were either in the bundle of muscular fibres forming the anterior border of the levator ani, or in the duplicatures or edges of the pelvic or recto-vesical fascia at the points where the vaginal canal perforates the fascia and receives insertions and prolongations from it. These contractions sometimes appeared in patients in whom no previous disorder of any of the pelvic organs could be ascertained to have existed; and he had lately seen one patient who was the subject of it, and who had never been able to allow her husband to approach her, so that in her the morbid condition must have been present before marriage, although she had never been in a position to be made aware of its existence. Instances, however, like this last oftener belonged to a class of cases where apparently the stricture was not, as in the preceding class, in the course of the vaginal canal, but was situated at its very orifice, independently apparently, in most, of all disease there except super-sensibility and spasm of the sphincter of the vagina, but traceable in others to hyperæsthesia of the mucous surfaces of the vulva or vagina, resulting from irritable eruptions or other morbid states of these mucous surfaces.—*Edin. Med. Journ.*, Dec. 1861.

HYGIENE.

57. *Early Vaccination.*—By many practitioners the vaccination of young infants has been objected to, as well in consequence of certain severe morbid phenomena to which it is supposed to give rise when performed at too early an age, as from the difficulty of then placing the system fully and permanently under its prophylactic influence. In 1821, M. Husson, a skilful vaccinator, declared that from twenty years experience he had observed no notable difference in the results of the vaccinations performed upon infants a few days old, and those practised in persons of a more advanced age. From this opinion several authorities of no mean weight dissent, including Bousquet, Barron, and, more recently, E. Barthez. The latter refers the death even of young infants, in many instances, to the too early performance of vaccination. We learn from a most interesting paper, read in February last before the French Academy of Medicine, by Dr. DEPAUL, that the views announced by M. Barthez gave rise to much discussion at one of the meetings of the *Societé Médicale des Hôpitaux;* in the course of which M. Legroux stated that he vaccinated all the new-born infants during his term of service. Believing that when accidents did occur they were caused by the number of punctures, he, finally, made only one in each arm. Since then he has not met with the slightest unfavourable occurrence that could be attributed to vaccination. M. Behier also declared himself in favour of early vaccination. He has performed it on the second day after birth

without the occurrence of any accident. M. Blache, who was formerly in favour of early vaccination, has become opposed to it, since he has repeatedly seen bad effects result from it at the *Hôpital Cochin*. He believes smallpox to rarely occur in infants under two months old, excepting when the disease is epidemic; hence, before then, vaccination, as a general rule, is not demanded.

In the *Union Médicale* there is a communication from Dr. Ragaine, of Mortagne (Orne), referring to a memoir presented by him to the Academy, in 1859, in which he announces that he had vaccinated over four hundred infants, from eight days to one month old, and in all the vaccination had been mild and favourable, unattended with either roseola, erysipelas, or enteritis. Some of the infants had diarrhœa, but this was referable to other causes than to the vaccination.

Dr. Laforgue, of Toulouse, in the same journal, states that when he first took charge of the maternity and nursery of *Hôtel Dieu*, he was astonished at the very early period after birth at which infants were there vaccinated, but he soon became convinced that the fears he had entertained in respect to such early vaccinations were groundless, and the practice was pursued by him, and without any accident in the case of healthy children who are secured from those morbid influences which are so fatal in lying-in hospitals and in nurseries.

In the above institution a series of experiments was instituted with the matter produced by inoculating the cow with the *grease* of the horse. Among the infants vaccinated with this matter, twenty-eight were between one and sixteen days. Six punctures, three in each arm, were made in each case, all of which gave rise to the characteristic vesicle. A single one of these infants, fourteen days old, was attacked with severe erysipelas, which extended over the entire body; but, nevertheless, terminated favourably. M. Laforgue has found that the inflammatory action, to which vaccination gives rise, was, in general, less in early infancy than it is in older subjects. From his observations he infers that vaccination performed in early infancy is unattended with danger; and that the accidents observed subsequent to the operation are due to causes foreign to it. He does not, however, recommend vaccination to be performed before the third month after birth, excepting in lying-in hospitals and in public nurseries, or during a variolous epidemic.

In the *Gazette des Hôpitaux* (Oct. 1861) there is a communication from Dr. Godefroy, of Rennes, announcing that since 1840 he had vaccinated all the infants placed in the clinic, from one hour after birth to seven days, which was the longest period to which he deferred it. He always made three punctures in each arm, and has never seen the slightest evil result from it.

Dr. Robert, of Guyonvelle (Haute-Marne), in a memoir sent to the Academy, remarks that he has had thirty years practice, and has vaccinated more than twenty thousand persons. In the commencement of his practice he was accustomed to defer vaccination until after the third month, but, upon a solicitation, he had every year vaccinated a few infants, from one to twenty days old, and has not found subaxillary engorgements, phlegmons, or erysipelas to follow more frequently than when the operation is not performed until some months or a year after birth. In 1200 vaccinations of children, aged between one and thirty days, there occurred, during or after the course of the vaccination, once in three hundred cases, an attack of simple erysipelas; once in four hundred and seventy-seven cases, the occurrence of phlegmon, and once in three hundred cases, submaxillary engorgement. The same accidents were rather more frequent in infants vaccinated after they had attained three months. Thus, erysipelas occurred once in two hundred and ninety-five, phlegmon, once in four hundred and twenty, and submaxillary engorgement, once in two hundred and fifty.

In the maternity of Paris, according to M. Danyau, from March 24th, 1859, to July 1st, 1861, seven hundred and thirty-five infants were vaccinated—in all cases shortly after birth. Two hundred of these remained throughout the course of the disease; among these only three accidents were observed, viz., a phlegmon, which was healed, and two cases of erysipelas of the arm, one of which terminated favourably, and the other was fatal.

Dr. Depaul remarks that in the young infants vaccinated by him, in the obstetric clinic, as well as in those vaccinated at the Infant's Hospital, no injury

was observed to result that could possibly be attributed to the too early performance of the operation.

From the facts and considerations presented by Dr. Depaul, he believes it to be proved—1st. That vaccination may be performed on the infant, shortly after birth, without the liability of its being attended with any more serious consequences than when the operation is postponed to a later period. 2d. In the case of infants placed under circumstances which diminish greatly their liability to exposure to variolous infection, vaccination may, without inconvenience, be postponed until they are two or three months old.—*Moniteur des Scien. Méd. et Pharm.*, Feb. 4, 1862.

58. *Utility of Bran in the Manufacture of Bread.*—The authorities judiciously attach much importance to the details of the manufacture of bread, and on the other hand, the trade endeavours to avail itself of certain scientific data to supply the therapeutist with hygienic and medicated bread. *Panification* is a question of paramount interest; and we can readily conceive why a surgeon holding an eminent position in the navy, Professor FONSSAGRIVES, has assigned to the subject a prominent place in his excellent treatise on elementary hygiene which has just been published by J. B. Baillière and Sons.[1]

"Wholesome bread," say the Instructions of the Military Board of Health, "must be well leavened, *i. e.* present numerous holes in all its parts; it must exhale its own peculiar agreeable odour, the crumb must be homogeneous, elastic, and the holes must reappear after slight pressure of the crumb; in short, the crust must be yellow, sonorous, and everywhere adhere to the crumb. Bread is of bad quality, badly prepared or baked, when its smell is faint or mouldy; when its colour is too dark or unequal; when it contains lumps of flour; when the crumb rolls up into compact masses, which do not resume their shape when pressed, or is diffluent and greasy; finally, when the crust is pale, soft, or burned, and detached from the crumb." To be well digested, bread should be eaten fifteen or twenty hours after it has been baked. The desire of purifying to its utmost limits flour intended for bread, has induced the directors of meal-stores to separate from it principles, the assimilation of which was turned to good account. Bran, for instance, performs in the digestion of bread a part, the importance of which, acknowledged in our days by American practitioners, and among others by Warren, had not escaped Hippocrates: "Brown bread," says he, "is siccative and aperient; white bread feeds more, and is less laxative." This is so true, adds Mr. Fonssagrives, that the question has been asked in latter times, and not without some reason, if the very great frequency of constipation does not originate in the bread being made of flour too finely sifted. It is, however, a positive fact that a coarser bread, made of a mixture of various flours or rather rye bread, very efficaciously removes torpidity of the bowels.

Mr. Fonssagrives considers as justly renowned in this respect the rye-bread of Ponscorff in Brittany, the taste of which is very savoury. The convalescent whose digestions are indolent may advantageously resort to its use; but in cases of habitual and stubborn constipation, this article of food is insufficient, and bran bread must be used.

"This bread," says Mr. Payen, "is much used in England. It is prepared with wheat, containing from 5 to 10 per cent. of bran. Its crust is dark-coloured and its crumb is brown. Persons who use it take it but once or twice a week and ascribe to it cooling properties due to the indigestible part of the bran, which in this case, acts mechanically in the same manner as white mustard seed."

Mr. Fonssagrives has frequently recourse in his own practice to bread made with equal parts of fine bran and wheat flour, and if the coarseness of its appearance does not deter them from its use, invalids derive much advantage from it in case of obstinate costiveness. A piece of bread weighing 3 or 4 ounces is eaten at each meal, and the latter is completed with ordinary bread. Dr. Lebarillier, of Bordeaux, has also adduced cases in which almost unconquerable constipation was removed by the persevering use of bran bread. It is specially adapted

[1] Hygiène alimentaire des malades, des convalescents, et des valétudinaires, ou du régime envisagé comme moyen thérapeutique.